

What is claimed is:

1. A model framework for generating batch programs comprising:

- an abstraction representing a batch program;
- an abstraction representing a batch function of the program;
- an abstraction representing operation of the function;
- an abstraction representing a data provider to the function; and
- an abstraction representing a context class of the function;

characterized in that instantiation of the model with the appropriate input data parameters input to each abstraction generates appropriate instances of batch functions including function operations wherein the generated instances are executable as part of a run sequence of the batch program.

2. The model framework of claim 1 wherein the modeling language is unified modeling language.

3. The model framework of claim 1 wherein instantiation creates user-instance functions that are operationally linked and together define a user-instance of batch program.

4. The model framework of claim 3 wherein the code required to generate the user instance functions defining the program is automatically generated by the model as a result of data input and subsequent instantiation.

5. The model framework of claim 1 wherein the data provider obtains its data from a database by query.

6. The model framework of claim 1 wherein one batch function indicates if memory management should be provided.

5 7. The model framework of claim 1 wherein the class encapsulates restart information and information passed between different operations.

8. A method for developing an executable batch program through model instantiation comprising steps of:

- 10 (a) providing an executable model abstraction including program, function, class, data provider, and operation objects;
- (b) inputting data into the model abstraction, the input data defining a user instance class of batch program;
- (c) instantiating the model abstraction;
- 15 (d) generating code within the model abstraction, the code defining user instances of batch functions including operations and execution orders; and
- (e) compiling the generated code to build the user instance batch program.

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9. The method of claim 8 wherein the model framework is a meta model framework.

10. The method of claim 8 wherein in step (a) the modeling language is
25 UML.

11. The method of claim 8 wherein in steps (d) and (e) are automated.